

20010519.qrp v02_n194.qrl.20010519

Date: Sat, 19 May 2001 19:03:06 EDT

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 2194

QRP-L Digest 2194

Topics covered in this issue include:

- 1) [98436] Re: new Kenwood radio?
by "N7SG K7FD" <k7fd@hotmail.com>
- 2) [98437] Re: new Ten-Tec radio?
by Louis Hlousek <lhhousek@nvhbell.net>
- 3) [98438] RE: Inexpensive BNC connectors
by Larry East <w1hue@amsat.org>
- 4) [98439] Re: SSB RAGCHEW
by Bill Walker <kd7jzb@mindspring.com>
- 5) [98440] Cuttin Copper HOWTO?
by "N0RC, Rod Cerkoney" <n0rc@hotmail.com>
- 6) [98441] Re: Cuttin Copper HOWTO?
by "David Porter" <aa3ur@home.com>
- 7) [98442] Re: SSB RAGCHEW: NO SHAME AT ALL....
by "ss lyon" <sslyon@megalink.net>
- 8) [98443] Square waves for mixers -- the summary
by Bob Cromwell <bob.cromwell@home.com>
- 9) [98444] W8PIG to be QRV shortly
by pwomble1@tampabay.rr.com
- 10) [98445] PSK-31 problem
by moglesto@ecentral.com
- 11) [98446] Kenwood YH-F6A Handheld with All Mode GC Receiver
by "James R. Duffey" <jamesd1@flash.net>
- 12) [98447] Re: PSK-31 problem
by Phil Wheeler <w7ox@earthlink.net>
- 13) [98448] Re: PSK-31 problem
by "George, W5YR" <w5yr@att.net>
- 14) [98449] Re: Cuttin Copper HOWTO?
by "Jim Gelbort" <jamesgelbort@worldnet.att.net>
- 15) [98450] RE: W8PIG to activate the original TT2 from FDIIM
by "David Bixler" <qrp@netins.net>
- 16) [98451] Halogen Light Noise
by Nancy & Steve Lawrence <smlx@earthlink.net>
- 17) [98452] Test Disregard
by "Glenn Maclean" <wa7spy@home.com>
- 18) [98453] Link to Buck PSK Interface
by ABCQRP <w6abc@yahoo.com>
- 19) [98454] RE: PSK-31 problem

- by "Brian B. Riley, N1BQ" <n1bq@wulfden.org>
- 20) [98455] Re: Schematic diagram re: Locked electronic keyer
by Stan Yarema <bg783@scn.org>
- 21) [98456] Fw: RE: Halogen Light Noise
by w6ors@juno.com
- 22) [98457] Smith (and other) Charts for your Feed System
by Beth Gardner / Dan Maguire <BethDan@pacbell.net>
- 23) [98458] Re: Cuttin Copper HOWTO?
by "Leon Heller" <leon_heller@hotmail.com>
- 24) [98459] Mic output amplification
by Drbob92031@aol.com
- 25) [98460] Re: Mic output amplification
by "Richard Hensel" <rrhensel@sprintmail.com>
- 26) [98461] Seeking help in NH
by "John Pate" <lighthousedx@hotmail.com>
- 27) [98462] PSK31 net
by joe living <jliving2001@yahoo.com>
- 28) [98463] Re: PSK31 net
by Bruce Muscolino <w6toy@erols.com>
- 29) [98464] RE: Mic output amplification
by "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
- 30) [98465] Re: PSK31 net
by Phil Wheeler <w7ox@earthlink.net>
- 31) [98466] PSK with DSB?
by "Oleg Borodin" <master72@lipetsk.ru>
- 32) [98467] Re: PSK with DSB?
by Phil Wheeler <w7ox@earthlink.net>
- 33) [98468] Re: PSK with DSB?
by "Mike WA8BXN" <hubby2k@hotmail.com>
- 34) [98469] Trapped on 20M
by Bill Walker <kd7jzb@mindspring.com>
- 35) [98470] NH AT ALERT
by "Steven Weber" <kd1jv@moose.ncia.net>
- 36) [98471] Re: Mic output amplification
by "Steven Weber" <kd1jv@moose.ncia.net>
- 37) [98472] Untrapped on 20M
by "James R. Duffey" <jamesd1@flash.net>
- 38) [98473] Re: PSK with DSB?
by Paul Kiciak <pkiciak@att.net>
- 39) [98474] Re: Mic output amplification
by "Mark M." <markem@cervnet.com>
- 40) [98475] Hamcalc?
by George Murphy <ve3erp@encode.com>
- 41) [98476] Re: Mic output amplification
by "Russ Hines" <wb8zcc@one.net>
- 42) [98477] Re: Inexpensive BNC connectors
by "Russ Hines" <wb8zcc@one.net>
- 43) [98478] Kenwood TS 120 Mic:

by "Gene Sailsbury" <gsailsbury@mobill1.net>
44) [98479] W8PIG on the air again with the TT2: 19May01 2000z
by pwomble1@tampabay.rr.com
45) [98480] Mouser insecurities
by "Robert P. Okas" <vintage@best.com>
46) [98481] Re: Mouser insecurities
by Bruce Muscolino <w6toy@erols.com>
47) [98482] RE: Mouser insecurities
by "Ed Tanton" <n4xy@att.net>
48) [98483] D-104
by Ray Sills <raysills@1stconnect.com>
49) [98484] Re: PSK31 net
by "Dave" <g0dja.dave@pgen.net>
50) [98485] CW key and keyer FS
by "Ken Simpson, W8EK" <W8EK@fdt.net>
51) [98486] Re: Trapped on 20M
by Louis Hlousek <lhlousek@nvhbell.net>

Date: Fri, 18 May 2001 16:24:59 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: qrp-1@Lehigh.EDU
Subject: [98436] Re: new Kenwood radio?
Message-ID: <F221uEDHhW0sXhnNRQL00005402@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

I noticed on the arrl site today there was a sneak peek pic of a new Ten Tec rig...looking almost K2-like...but showing 146MHz on the dial...

73 John K7FD

>From: "Jerry McCollom" <w0mc@hotmail.com>
>Reply-To: w0mc@hotmail.com
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
>Subject: Re: new Kenwood radio?
>Date: Fri, 18 May 2001 14:59:52 -0600
>
>Well, I was just tuned into the end of their webcast and the only relevant
>statement I heard about their announcement was a lady saying "...and I
>think
>everyone is impressed with our new HT". So I'd wager it's a new HT they
>announced :-)
>
>72,
>

>Jerry, W0MC
>Fort Collins, CO
>
>*** Superfest 2001 - <http://www.qsl.net/n0rc/hamfest/>
>***
>
>

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Fri, 18 May 2001 17:06:41 -0700
From: Louis Hlousek <lhlousek@nvhbell.net>
To: k7fd@hotmail.com, Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [98437] Re: new Ten-Tec radio?
Message-ID: <033d01c0dff7\$9524b1a0\$650dfea9@0016297931>
MIME-version: 1.0
Content-type: text/plain; charset="Windows-1252"
Content-transfer-encoding: 7bit

New Ten-Tec: See <http://www.tentec.com/TT526.htm> for more info.

Luigi W7DZN

Date: Fri, 18 May 2001 18:38:16 -0600
From: Larry East <wlhue@amsat.org>
To: qrp-l@lehigh.edu
Cc: "Bob Tellefsen" <n6wg@earthlink.net>
Subject: [98438] RE: Inexpensive BNC connectors
Message-ID: <5.1.0.14.2.20010518183205.023cae00@mail.ida.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

In a recent post, Bob Tellefsen wrote:

>Turns out that BOMAR is the manufacturer of these connectors, and sells
>their
>production overruns very cheaply.
>
>Their URL is <http://www.bomarinterconnect.com/html1/clearance.html>

Tried twice to view the URL using Netscape V4.7 and each time Netscape

dropped to its knees and died... Tried it with an old version of Internet Explorer (V3.02 -- I refuse to update to a newer version just because...) and it worked fine. Is BOMAR perhaps owned by Bill Gates?? :-) :-)

L.

Date: Fri, 18 May 2001 18:32:24 -0700
From: Bill Walker <kd7jzb@mindspring.com>
To: QRP-L List <qrp-l@Lehigh.EDU>
Subject: [98439] Re: SSB RAGCHEW
Message-ID: <5.0.2.1.0.20010518183109.00a48b80@mail.mindspring.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Shame! Shame to you all! :-)

At 10:42 5/18/01 -0400, you wrote:
>The noise became too much so we
>went QRO to 20Watts and that solved the noise! Sometimes
>you need POWER! About 8:12 John WB1HBE joined us.
>All chatted for a few minutes before we told John we were
>QRO at 20W. He then went QRO and all had a great time
>taking a short break from CW. At 8:25 we QSY'd to 3.565 to
>wait for the NEQRP CW NET to start.
>
>Ron - N1ZSW

Bill Walker - KD7JZB
<http://www.qsl.net/kd7jzb>

Date: Fri, 18 May 2001 19:55:07 -0600
From: "N0RC, Rod Cerkoney" <n0rc@hotmail.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [98440] Cuttin Copper HOWTO?
Message-ID: <0E471i6bdVJWrGW6Ex30000019b@hotmail.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Folks,

I just scored a few big sheets (3ft x 4ft yes I said FEET!) of copper

clad. Now I looking for way to cut this stuff into smaller chunks.
Don't want to go to the expense of a shear, nor do I have access to
one. I recall George Heron posting a while back on this matter but
haven't be able to locate the posting. I thought he was using a
circular saw, with a fine tooth blade.

Now lets see, 1/4" pads, from a 3' x 4' piece--WOW that's abt
27,000-28,000 pads!

73, Rod N0RC
Ft Collins, CO

SuperFest 2001 14-Jul-2001
<http://www.qsl.net/n0rc/hamfest/hamfest.html>
BE THERE!

Date: Fri, 18 May 2001 22:03:34 -0400
From: "David Porter" <aa3ur@home.com>
To: <n0rc@hotmail.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [98441] Re: Cuttin Copper HOWTO?
Message-ID: <004201c0e007\$e9dde440\$926e0941@jamison1.pa.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

He used a circular saw with a diamond blade and two sawhorses.

David Porter
aa3ur@home.com
AA3UR

> I recall George Heron posting a while back on this matter but
> haven't be able to locate the posting. I thought he was using a
> circular saw, with a fine tooth blade.

>
> 73, Rod N0RC
> Ft Collins, CO
>

Date: Fri, 18 May 2001 22:03:47 -0400
From: "ss lyon" <sslyon@megalink.net>
To: <kd7jzb@mindspring.com>, "Low Power Amateur Radio Discussion" <qrp-
l@lehigh.edu>
Subject: [98442] Re: SSB RAGCHEW: NO SHAME AT ALL....
Message-ID: <006901c0e007\$f0d72b80\$5d8798ce@megalink.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

It was a nice noisy evening, and we wanted to communicate for the very first
time to see how many might be interested in making the connection. We simply
used minimum power to make that happen. Plain old good operating practice.

73

-s-72 / 73,
"Seab" Lyon - AA1MY
Bethel, ME 04217 USA
 FN44nj

SS LYON
99 Sparrowhawk Mtn Rd
Bethel, Me, 04217 U.S.A.

----- Original Message -----

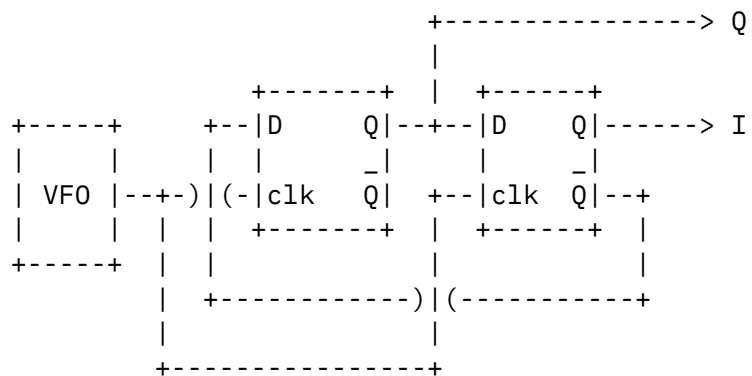
Date: Fri, 18 May 2001 21:56:40 -0500
From: Bob Cromwell <bob.cromwell@home.com>
To: qrp-l@Lehigh.EDU
Cc: tatindy@iquest.net
Subject: [98443] Square waves for mixers -- the summary
Message-ID: <0105182156400A.01492@ct721463-a.lafayt1.in.home.com>
Content-Type: text/plain;
 charset="iso-8859-1"
MIME-Version: 1.0
Content-Transfer-Encoding: 8bit

-----BEGIN PGP SIGNED MESSAGE-----
Hash: SHA1

Many thanks to all those who responded to my question about using
square waves as the quadrature LO for a Rick Campbell R2/T2 type
system!

Below is a recap and summary of what I got on this. The short answer is that yes, square waves are fine, in fact, preferable. As long as (as with everything else) you do it correctly. That includes a LPF on the RF port. And, as usual with mixers, ensuring broadband 50 ohm termination on all the ports.

That's good news for me, I'm looking to generate my quadrature digitally, starting from a non-digital VFO. Use a pair of D flip-flops to generate I/Q signals at one-fourth the original VFO frequency. That should also cut VFO drift by a factor of four, although it will probably be made up for by the flakiness of a VFO running at a higher frequency.... Something like the below, where the VFO might be replaced by a VFO at 133% of the desired final LO, followed by a frequency tripler and buffer.



As for a bibliography on this topic, here's what I've found:

Philips Semiconductors Application Note AN1981, "New Low-Power Single Sideband Circuits"

"QEX", Jan/Feb 1998, pp 34-39, "RF Phase Shifters for Phasing-Type SSB Rigs", Byron Blanchard N1EKV

"QEX", Sep/Oct 1999, pp 9-23, "The Bedford Receiver: A New Approach", Rodney Green VK6KRG

"QEX", Nov/Dec 1999, pp 52-54, "Notes on 'Ideal' Commutating Mixers, Doug Smith KF6DX

"QEX", Mar/Apr 2001, pp 61-62, reply to above

"QEX", May/Jun 2001, pp 45-50, "Reducing IMD in High-Level Mixers", John Stephensen KD6OZH

"QST", Apr 1998, "A High-Performance, Single-Signal, Direct-Conversion Receiver with DSP Filtering", Rob Frohne KL7NA

Plus, of course, Rick Campbell's "QST" articles:

Aug 1992 pp 19-28
Jan 1993 pp 32-40 (errata Apr 93 pg 75)
Apr 1993 pp 27-31
May 1993 pp 29-34
Nov 1995 pp 41-46
Feb 1996 pp 82-84
Mar 1999 pp 44-48

On to the replies!

Bob KC9RG
bob.cromwell@home.com

[illegible]

```
> From: lenny wintfeld <w2bvh@home.com>
>
> Bob
>
>     Are you in luck! This month's (May/June) QEX has a 6 pager on this
> subject ("Reducing IMD in High Level Mixers"). What filters to use and why
> and where they go. Call ARRL for a copy.
```

```
> From: Roger Traylor <traylor@ece.orst.edu>
>
> Bob,
> My R2 is very happy with square wave inputs. I drive my SBL-1s
> from two 74AC04 inverters operating in parallel. Their combined
> output impedance is about 7 ohms, so I source terminate with a 43
> ohm resistor followed by a pad to get 7dbm drive into 50 ohms.
>
> Even if you put a sine wave LO into the DBM it gets squared off,
> so don't sweat the square wave. And yes, it responds quite nicely
> to 3rd, 5th, 7th.... harmonic sigals. So put your BPF on the
> input side of the mixers.
```

```
> From: "Dave Fifield" <ad6a@earthlink.net>
>
> The latest QEX magazine has an interesting article in it about
> obtaining the best possible performance from DBM's. The
> trick is to terminate all ports properly (of course!). I would
> recommend anyone designing/playing with DBM's to read
```

> the article.

> From: "Don Wilhelm" <w3fpr@arrl.net>

>

> Bob,

> Most any diode ring mixer will be happier with square waves at the LO port.

> Yes the R2/T2 falls into that category. It just so happens that quadrature

> outputs are easily obtained from digital VFO designs, and that makes their

> use in the R2/T2 a real plus - but the phase noise of digital VFOs is a

> downer and reduces the MDS substantially. I guess it is a compromise just

> like everything else in life.

> From: "Leon Heller" <leon_heller@hotmail.com>

>

> Diode DBMs prefer square waves. In fact, if you look at the oscillator

> signal at the mixer LO port, you will see that it gets clipped by the

> diodes, so you are better off with a square wave in the first place. MCL

> have some info on this for their mixers.

> From: "Glen Leinweber" <leinwebe@mcmaster.ca>

>

> Bob,

> While diode ring mixers may be spec'd for sinewave local oscillator

> signals, this has more to do with history than engineering. Up till

> recently, most local oscillators put out sinewaves. These days, with

> DDS, and synthesizers and PLLs, square waves are the norm.

> I'd guess that diodes were used first as switching mixers back in

> vacuum tube days. Almost all diode ring mixers are used now as switching

> mixers. And such mixers are very happy with square wave local

> oscillator signals.

> One potential problem is to see that the mixer actually GETS a

> square wave. I think it was Rick Campbell himself who pointed out

> this problem. Here's a problematic setup:

> The square wave source is hosed up to the mixer's local oscillator

> port through a length of coax.

> The mixer will not likely see a square wave because all the

> diodes inside present a very non-linear load - it is by no means

> 50 ohms. So you get some reflections, which screws up the

> nice square waveshape.

> I've solved this one by feeding the mixer with a source placed

> right next to the mixer, so that no coax was required.

>

> As with any ring mixer, you should try to isolate the local

> oscillator from the low-level RF path. Some pretty subtle

> problems can show up when some local oscillator signal leaks

> into the RF or IF ports.

> From: Stan Yarema <bg783@scn.org>

>

> Hi Bob,

> When I first saw your note, I looked through some of my articles
> without any luck.. I have an R2 also and remember someone suggesting square
> wave drive.

> Later I found some info in the '93 ARRL handbook on mixers. They
> confirm that there are advantages to square-wave drive but you do need to
> use band-pass filters at the input. The harmonics do mix with input
> signals on other bands. For example if the radio is tuned to 7 MHz, you
> would also hear 21 MHz signal without the filter. (21 MHz detection due
> to the third harmonic)

> I would have thought that once the diode is conducting, it wouldn't be
> effected by the harmonics. Anyway, check the handbook.

-----BEGIN PGP SIGNATURE-----

Version: GnuPG v1.0.4 (GNU/Linux)

Comment: For info see <http://www.gnupg.org>

iEYEARECAAYFAjsF40wACgkQE0PBXmL+TdGrJACgo3Ux+Lmry34waEh20ktdoEyj

1msAmwW1n5ukoYHabHYkEWq/9FWCh2pi

=QHCR

-----END PGP SIGNATURE-----

Date: Fri, 18 May 2001 23:00:40 US/Eastern

From: pwomble1@tampabay.rr.com

To: qrp-1@lehigh.edu

Cc: fpqrp-1@mpna.com

Subject: [98444] W8PIG to be QRV shortly

Message-ID: <200105190300.f4J30dv14696@smtp-server2.tampabay.rr.com>

We're running a little late getting the TT2 on the air.

All of the free FT-817's being given away at FIDM Vendor night slowed us down.

W8PIG will be on the air in about 15 minutes (11:15 pm Ohio time).

73

Paul

K4FB/8

Date: Fri, 18 May 2001 20:36:53 -0600 (MDT)
From: mugglesto@ecentral.com
To: BYU Linux Club <uug-discuss@clubs.byu.edu>, Linux Hams <linux-hams@vger.kernel.org>, qrp-l <qrp-l@lehigh.edu>
Subject: [98445] PSK-31 problem
Message-ID: <Pine.LNX.4.10.10105182026480.901-1000000@mugleston.mugs.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I'm stumped. I've got a Dell OptiPlex GX1 and a Buck PSK-31 interface. For some reason when I plug in the cable into the speaker outlet (only output on the sound card) ALL versions of PSK (both Linux and Windows) lock up, well not lock up but act as if it is in the transmit mode (the waterfall stops and PSK kind of sits there).

I've traced it down to the ground (common) wire on the Buck interface. But that doesn't make any sense to my simple mind - the input common wire on the circuit board is connected to the common wire of the output (expected) but for some reason when the speaker is connected it locks up.

If the common wire is not connected to the circuit board the send doesn't send the audio (radio goes into transmit but no tone) I would expect that I wouldn't need the common from the sound side (isn't it common for both the input and output?)

I'm thinking of cutting the trace on the circuit board between the in and out common wires to see if that would work (no big deal easy to fix but just haven't done it - maybe it's my last hope and I'm afraid if it doesn't work I'm SOL)

Anyway, does anyone have any suggestions?

Thanks,

Brad Mugleston, KI00T
Aurora, Arapahoe Cty, Colorado
DM79oq 39.692500N 104.802600W
CQC #170, QRP-L #316, NorCal #2934

Date: Fri, 18 May 2001 21:10:09 -0600
From: "James R. Duffey" <jamesd1@flash.net>

To: qrp-1 <qrp-1@lehigh.edu>
Subject: [98446] Kenwood YH-F6A Handheld with All Mode GC Receiver
Message-ID: <B72B4030.9B0E%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

All - Howard, G6LVB, has posted pictures and information of the new Kenwood handie talkie that was introduced at Dayton.

www.g6lvb.com

It is a 144/220/440 FM hand held with an all mode geneeral coverage receiver.

Not the 817 beater we had hoped for, but it is an interesting combination of capabilities. Since it was mentioned here, I thought I would post it.

Has it rained at Dayton yet?? - Dr. Megacycle KK6MC/5

--

James R. Duffey KK6MC/5
30 Casa Loma Road
Cedar Crest, NM 87008

Date: Fri, 18 May 2001 20:24:48 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: mugglesto@ecentral.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98447] Re: PSK-31 problem
Message-ID: <3B05E780.92F2BB04@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Suggest you tell us where we can find out what a "buck" interface is. New to me, adn I do operate PSK-31 .. with T/R switching via the serial port of my computer (as with most interfaces I know of).

73, Phil W7OX

mugglesto@ecentral.com wrote:

>

> I'm stumped. I've got a Dell OptiPlex GX1 and a Buck PSK-31 interface.
> For some reason when I plug in the cable into the speaker outlet (only
> output on the sound card) ALL versions of PSK (both Linux and Windows)

> lock up, well not lock up but act as if it is in the transmit mode (the
> waterfall stops and PSK kind of sits there).
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> I've traced it down to the ground (common) wire on the Buck interface.
> But that doesn't make any sense to my simple mind - the input common wire
> on the circuit board is connected to the common wire of the output
> (expected) but for some reason when the speaker is connected it locks up.
>
> If the common wire is not connected to the circuit board the send doesn't
> send the audio (radio goes into transmit but no tone) I would expect that
> I wouldn't need the common from the sound side (isn't it common for both
> the input and output?)
>
> I'm thinking of cutting the trace on the circuit board between the in and
> out common wires to see if that would work (no big deal easy to fix but
> just haven't done it - maybe it's my last hope and I'm afraid if it
> doesn't work I'm SOL)
>
> Anyway, does anyone have any suggestions?
>
> Thanks,
>
> Brad Mugleston, KI0OT
> Aurora, Arapahoe Cty, Colorado
> DM79oq 39.692500N 104.802600W
> CQC #170, QRP-L #316, NorCal #2934

Date: Fri, 18 May 2001 22:33:48 -0500
From: "George, W5YR" <w5yr@att.net>
To: muglesto@ecentral.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [98448] Re: PSK-31 problem
Message-ID: <3B05E99C.99291046@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Brad, remember that the speaker output on the card is stereo with
connections to Ring and Tip for signal. I know nothing about the interface
you are using, but something may be hosed on the card.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6

Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

muglesto@ecentral.com wrote:

>
> I'm stumped. I've got a Dell OptiPlex GX1 and a Buck PSK-31 interface.
> For some reason when I plug in the cable into the speaker outlet (only
> output on the sound card) ALL versions of PSK (both Linux and Windows)
> lock up, well not lock up but act as if it is in the transmit mode (the
> waterfall stops and PSK kind of sits there).
>
> I've traced it down to the ground (common) wire on the Buck interface.
> But that doesn't make any sense to my simple mind - the input common wire
> on the circuit board is connected to the common wire of the output
> (expected) but for some reason when the speaker is connected it locks up.
>
> If the common wire is not connected to the circuit board the send doesn't
> send the audio (radio goes into transmit but no tone) I would expect that
> I wouldn't need the common from the sound side (isn't it common for both
> the input and output?)
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> I'm thinking of cutting the trace on the circuit board between the in and
> out common wires to see if that would work (no big deal easy to fix but
> just haven't done it - maybe it's my last hope and I'm afraid if it
> doesn't work I'm SOL)
>
> Anyway, does anyone have any suggestions?
>
> Thanks,
>
> Brad Mugleston, KI0OT
> Aurora, Arapahoe Cty, Colorado
> DM79oq 39.692500N 104.802600W
> CQC #170, QRP-L #316, NorCal #2934

--

Date: Fri, 18 May 2001 22:38:20 -0500
From: "Jim Gelbort" <jamesgelbort@worldnet.att.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [98449] Re: Cuttin Copper HOWTO?
Message-ID: <002401c0e015\$26ffb080\$6500a8c0@me1>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Sounds like a summer job for a teenager and a nibbling tool.

Jim N9WW

----- Original Message -----

From: N0RC, Rod Cerkoney <n0rc@hotmail.com>

To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Sent: Friday, May 18, 2001 8:55 PM

Subject: Cuttin Copper HOWTO?

> Folks,

>

> I just scored a few big sheets (3ft x 4ft yes I said FEET!) of copper
> clad. Now I looking for way to cut this stuff into smaller chunks.

> Don't want to go to the expense of a shear, nor do I have access to
> one. I recall George Heron posting a while back on this matter but
> haven't be able to locate the posting. I thought he was using a
> circular saw, with a fine tooth blade.

>

> Now lets see, 1/4" pads, from a 3' x 4' piece--WOW that's abt
> 27,000-28,000 pads!

>

> 73, Rod N0RC
> Ft Collins, CO

>

> *****

> SuperFest 2001 14-Jul-2001

> <http://www.qsl.net/n0rc/hamfest/hamfest.html>

> BE THERE!

> *****

>

>

Date: Fri, 18 May 2001 23:25:14 -0500

From: "David Bixler" <qrp@netins.net>

To: <pwomble1@tampabay.rr.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [98450] RE: W8PIG to activate the original TT2 from FDIM

Message-ID: <DBEPKBJH00EAHCKKIHPFMEMGCBAA.qrp@netins.net>

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Hi Gang:

Just worked W8PIG from FDIM at Dayton on 7041.6 KHz.
Diz was kinda weak with lots of QRN here in SW Missouri.

Had to wait till a couple of west coast stations
cleared the frequency, but we made the QS0.

He's still on there if you want to work the original TT2.

David Bixler W0CH - VK2IQX
Seneca, MO
Main Web Site: <http://www.qsl.net/w0ch>
Mirror Site: <http://showcase.netins.net/web/w0ch>

QRP: Little Radios, Big Fun!

Date: Fri, 18 May 2001 21:59:58 -0700
From: Nancy & Steve Lawrence <smlx@earthlink.net>
To: qrp-l@Lehigh.EDU
Subject: [98451] Halogen Light Noise
Message-ID: <l03130306b72bad9a27ee@[209.179.135.143]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I recently installed Lutron Maestro electronic dimmers throughout my house
opewrating Westinghouse 120V Halogen floods. I have not detected any RFI
problems. - Steve WB6RSE

Date: Fri, 18 May 2001 22:26:56 -0700
From: "Glenn Maclean" <wa7spy@home.com>
To: <qrp-l@Lehigh.EDU>
Subject: [98452] Test Disregard
Message-ID: <002001c0e024\$5240d940\$6501a8c0@home.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Test

Date: Fri, 18 May 2001 22:43:53 -0700 (PDT)
From: ABCQRP <w6abc@yahoo.com>
To: qrp-1@lehigh.edu
Subject: [98453] Link to Buck PSK Interface
Message-ID: <20010519054353.47598.qmail@web14202.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Someone needed the link to the Buck PSK-31 Interface.
<http://www.packetradio.com/psk31.htm>
Personally I use the RIGBlaster, but this looks like a
very nice unit. I had a QSO with the guy who runs
this business, seemed like a nice chap.
73,
Jack

Do You Yahoo!?
Yahoo! Auctions - buy the things you want at great prices
<http://auctions.yahoo.com/>

Date: Sat, 19 May 2001 01:50:10 -0400
From: "Brian B. Riley, N1BQ" <n1bq@wulfdn.org>
To: <w7ox@earthlink.net>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [98454] RE: PSK-31 problem
Message-ID: <LPBBJAGIPFHKPJENAKLOMEPIEKAA.n1bq@wulfdn.org>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

"Buck" Interface is probably the Buck Rogers RASCAL Interface
<<http://www.packetradio.com>> I have one for my Alinco DX77 and its very
good ...

> -----Original Message-----
> From: owner-qrp-1@Lehigh.EDU
> [mailto:owner-qrp-1@Lehigh.EDU]On Behalf Of
> Phil Wheeler
> Sent: Friday, May 18, 2001 23:25 PM
> To: Low Power Amateur Radio Discussion

> Subject: Re: PSK-31 problem
>
>
> Suggest you tell us where we can find out what a "buck" interface is.
> New to me, adn I do operate PSK-31 .. with T/R switching via
> the serial
> port of my computer (as with most interfaces I know of).
>
> 73, Phil W70X
>
> mugglesto@ecentral.com wrote:
> >
> > I'm stumped. I've got a Dell OptiPlex GX1 and a Buck
> PSK-31 interface.
> > For some reason when I plug in the cable into the speaker
> outlet (only
> > output on the sound card) ALL versions of PSK (both Linux
> and Windows)
> > lock up, well not lock up but act as if it is in the
> transmit mode (the
> > waterfall stops and PSK kind of sits there).
> >
> > I've traced it down to the ground (common) wire on the Buck
> interface.
> > But that doesn't make any sense to my simple mind - the
> input common wire
> > on the circuit board is connected to the common wire of the output
> > (expected) but for some reason when the speaker is
> connected it locks up.
> >
> > If the common wire is not connected to the circuit board the
> send doesn't
> > send the audio (radio goes into transmit but no tone) I
> would expect that
> > I wouldn't need the common from the sound side (isn't it
> common for both
> > the input and output?)
> >
> > I'm thinking of cutting the trace on the circuit board
> between the in and
> > out common wires to see if that would work (no big deal
> easy to fix but
> > just haven't done it - maybe it's my last hope and I'm afraid if it
> > doesn't work I'm SOL)
> >
> > Anyway, does anyone have any suggestions?
> >
> > Thanks,

> >
> > Brad Mugleston, KI00T
> > Aurora, Arapahoe Cty, Colorado
> > DM79oq 39.692500N 104.802600W
> > CQC #170, QRP-L #316, NorCal #2934
>

Date: Sat, 19 May 2001 00:42:08 -0700 (PDT)
From: Stan Yarema <bg783@scn.org>
To: Donny Sirait <dsirait@centrin.net.id>
Cc: Low Power Amateur Radio Discussion <qrp-l@lehigh.edu>
Subject: [98455] Re: Schematic diagram re: Locked electronic keyer
Message-ID: <Pine.SUN.3.96.1010519003916.22614A-100000@scn>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I have the same AD7I keyer and have never lost a '4093. It was a bit flaky though and I added 100 pF caps from the '4017 reset lines to gnd. That was much better, but still get a timing jitter occasionally.

I passed this to Donny, 72 Stan, K7SY

Date: Fri, 18 May 2001 21:38:30 -1000
From: w6ors@juno.com
To: qrp-l@Lehigh.EDU
Subject: [98456] Fw: RE: Halogen Light Noise
Message-ID: <20010518.215008.-91969.1.w6ors@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Does anyone have or know of a circuit to "dim" down the interference the Halogen lights put out? I have a couple of them in the near neighborhood and would like to go into "production" to make RFI filters and install them for the good of the Ham Bands.

73/2,

Corky

Hilo HI

Pain and suffering are inevitable, but misery is optional.

----- Forwarded message -----

From: "Kevin Muenzler, WB5RUE" <wb5rue@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Date: Fri, 18 May 2001 08:33:49 -0500
Subject: RE: Halogen Light Noise
Message-ID: <000e01c0df9f\$2c6e63c0\$ef5d6f81@v8.uthscsa.edu>

Yes you are correct, these new low-voltage halogen lamps are a real problems. They do use a small switching supply. The 120v models aren't too much better if they have a dimmer built-in. They use the standard method of dimming by reducing the duty cycle of the AC by squaring off the wave form. They can cause noise too but not to the extent of the low-voltage models. If your neighbor doesn't need a dimmer the 120v lamps would cause no more noise than a standard light bulb. Problem is that most tracks aren't rated for 120v operation.

72/73
Kevin, WB5RUE

-----Original Message-----

From: owner-qrp-l@Lehigh.EDU [mailto:owner-qrp-l@Lehigh.EDU] On Behalf Of Steve McDonald
Sent: Thursday, May 17, 2001 9:57 PM
To: Low Power Amateur Radio Discussion
Subject: Halogen Light Noise

Has anyone experienced these monsters? My good neighbour has just put three of these miniature tracklights in his bathroom. It looks like they use a switching supply to develop 12 V as each light has its own 'module'. They are very noisy and generate all sorts of buzz and spurious signals especially in the LF band below 500 KHz. My question is...does anyone know if the 120 volt halogens (no power modules needed) are electrically silent (like a regular bulb). If that is the case I could replace the track for him and put in the quiet ones.

Steve / VE7SL

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<http://dl.www.juno.com/get/tagj>.

Date: Sat, 19 May 2001 01:28:07 -0700
From: Beth Gardner / Dan Maguire <BethDan@pacbell.net>
To: qrp-1@Lehigh.EDU
Cc: Raymond.Anderson@Sun.COM
Subject: [98457] Smith (and other) Charts for your Feed System
Message-ID: <3B062E97.45F2@pacbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

Fellow "Didn't-make-it-to-Dayton-this-year" folks:

The XLZIZL antenna feed system modeling software that I mentioned on this list a few weeks ago now has a permanent home on the web. The web site has screen captures for several examples, including:

- Smith charts for a dipole fed with ladder line, a 4:1 balun, and a tuner.

(Note: See page 8 of the Q&A file for the limitations on modeling baluns.)

- The same antenna fed with two sections of coax, RG-58 and RG-59, per AI1H.

- E and I standing waves on a one wavelength section of RG-174 with arbitrary load.

- S21 and S11 on a 12 foot piece of Wireman 554 ladder line, modeled to simulate a network analyzer, per N7WS.

- 100 feet of RG-213 with an arbitrary load, showing the components of loss due to conductor, dielectric, and SWR.

- Symmetrical T and Pi solutions for a particular matching problem, shown both numerically and graphically.

(This example includes side by side Smith and rectangular R+jX charts for

the same set of impedance points. If you've ever felt a little unclear

on just how to "read" a Smith chart, this may help.)

Check it all out at
<http://www.qsl.net/ac6la/>

I'd like to offer a public "Thank You!" to Ray Anderson, WB6TPU, for providing a temporary home for XLZIZL while I figured out how to create

my own web site. The copy of XLZIZL found on Ray's site will be going away in the near future.

73,
Dan AC6LA

Date: Sat, 19 May 2001 12:36:32
From: "Leon Heller" <leon_heller@hotmail.com>
To: n0rc@hotmail.com, qrp-l@Lehigh.EDU
Subject: [98458] Re: Cuttin Copper HOWTO?
Message-ID: <F219xJMXehYSo0ZzHZl00008879@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>
>I just scored a few big sheets (3ft x 4ft yes I said FEET!) of copper
>clad. Now I looking for way to cut this stuff into smaller chunks.

The easiest way, especially for the cheaper SRBP-based stuff, is to score it deeply on both sides with a Stanley knife, then snap it along the the score lines. You can do this with FR4, but it's harder.

73, Leon

--
Leon Heller, G1HSM Tel: (work): +44 1327 357824 (home): +44 1327 359058
Email:leon_heller@hotmail.com My web page:
http://www.geocities.com/leon_heller IRISYS Ltd: <http://www.irisys.co.uk>

Get Your Private, Free E-mail from MSN Hotmail at <http://www.hotmail.com>.

Date: Sat, 19 May 2001 09:14:21 EDT
From: Drbob92031@aol.com
To: QRP-L@lehigh.edu
Subject: [98459] Mic output amplification
Message-ID: <63.1653800b.2837cbad@aol.com>
MIME-Version: 1.0

Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Hi to all;

I need some knowledge. This is not directly QRP related.

I have a mic; D-104; and I have a bad habit of yelling into the mic as if my shouting will reach the DX at the other end. This shouting (yelling) is disturbing late at night.

Questions;

- 1.If I break this habit of shouting will I get the same drive from the mic?
 2. If not, would a mic amplifier between the mic and the rig. allow me to speak in a softer voice and still give me a reasonable rig output?
 3. If I need the mic amplifier, (this is where the knowledge comes in) where do I get the schematics etc. Something in the order of "that little black" box that I can put between the mic and the rig. small in size i.e. uses I.C.'s.
- Any assistance would be appreciated by myself the XYL and the neighbors.
72/73 de WA2EAW..Bob

Date: Sat, 19 May 2001 09:40:01 -0400
From: "Richard Hensel" <rrhensel@sprintmail.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [98460] Re: Mic output amplification
Message-ID: <001c01c0e069\$35361aa0\$441fbfa8@homerrrh>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I have a schematic for a simple 1 transistor amp I use. Its quite simple and can be built on about .75" square perf board.

Richard Hensel
n8wlc@arrl.net

People are more violently apposed to furs than leather because it is easier to pick on rich old ladies than biker gangs

----- Original Message -----

From: <Drbob92031@aol.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Saturday, May 19, 2001 9:14 AM
Subject: Mic output amplification

SNIP

Date: Sat, 19 May 2001 10:01:15 -0400
From: "John Pate" <lighthousedx@hotmail.com>
To: qrp-1@Lehigh.edu
Subject: [98461] Seeking help in NH
Message-ID: <F145DAnVHL2uwjt5a8X0000cde3@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

I have a MFJ 9420 radio and just got the CW adapter board. I need help recalibrating the radio (another rig/freq counter) and would like some local help doing this. I live in the Manchester, Nh area. If you are in the area and available, please give me a call at 497-5252. Thansk. John KB4UTV/1

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Sat, 19 May 2001 07:52:12 -0700 (PDT)
From: joe living <jliving2001@yahoo.com>
To: qrp-1@lehigh.edu
Subject: [98462] PSK31 net
Message-ID: <20010519145212.79759.qmail@web10608.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Hi gang

What about starting a qrp net using psk31? We could try 20 meters and invite the world to check in. It would be a great forum for newcomers as well as old salts who could share their wisdom with the rest of us.

Joe W3GW

Do You Yahoo!?
Yahoo! Auctions - buy the things you want at great prices
<http://auctions.yahoo.com/>

Date: Sat, 19 May 2001 10:50:57 -0400
From: Bruce Muscolino <w6toy@erols.com>

To: jliving2001@yahoo.com
Cc: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>
Subject: [98463] Re: PSK31 net
Message-ID: <3B068851.DD09197F@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Joe,

20 meters already has a lot of PSK activity up at 14.070. I don't know if another net would find space!

73

Date: Sat, 19 May 2001 11:02:38 -0400
From: "Lofstead, Jerry" <Jerry.Lofstead@itb.mckhboc.com>
To: "'Drbob92031@aol.com'" <Drbob92031@aol.com>, Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98464] RE: Mic output amplification
Message-ID: <078F21595FA7D411B87B00805FA728E64A4798@atlexc02ntms.hboc.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Bob,

Look in any ARRL handbook. There is a very simple 2N2222 amp in there. The D104 has VERY high output by itself but at about 40-50K ohms..

Jerry
W3CDE

-----Original Message-----

From: Drbob92031@aol.com [mailto:Drbob92031@aol.com]
Sent: Saturday, May 19, 2001 9:14 AM
To: Low Power Amateur Radio Discussion
Subject: Mic output amplification

Hi to all;
I need some knowledge. This is not directly QRP related.
I have a mic; D-104; and I have a bad habit of yelling into the mic as if my shouting will reach the DX at the other end. This shouting (yelling) is

disturbing late at night.

Questions;

- 1.If I break this habit of shouting will I get the same drive from the mic?
2. If not, would a mic amplifier between the mic and the rig. allow me to speak in a softer voice and still give me a reasonable rig output?
3. If I need the mic amplifier, (this is where the knowledge comes in) where

do I get the schematics etc. Something in the order of "that little black" box that I can put between the mic and the rig. small in size i.e. uses I.C.'s.

Any assistance would be appreciated by myself the XYL and the neighbors.

72/73 de WA2EAW..Bob

Date: Sat, 19 May 2001 08:31:01 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: w6toy@erols.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [98465] Re: PSK31 net
Message-ID: <3B0691B5.AE1AD05F@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Bruce Muscolino wrote:

>
> Joe,
>
> 20 meters already has a lot of PSK activity up at 14.070. I don't know
> if another net would find space!
>

Agree .. no real need for a net on 20m PSK31, since it is the most used band in that mode .. and much activity *is* QRP. Maybe on other bands such a thing would be good.

73, Phil W7OX

Date: Sat, 19 May 2001 20:26:51 +0400
From: "Oleg Borodin" <master72@lipetsk.ru>
To: "qrp-l" <qrp-l@lehigh.edu>
Subject: [98466] PSK with DSB?
Message-ID: <20010519162817Z9829-55468+278@relay.lipetsk.ru>

MIME-Version: 1.0
Content-Type: text/plain; charset=Windows-1251
Content-Transfer-Encoding: 7bit

Dear QRPers!

A little idea and question. Is it possible to use PSK mode with DSB-trcvr?
If it is, this maybe a too simple and little equipment. Looking for
opinions, thnx!

72 & 73! de RV3GM/QRP Lipetsk, Russia

G-QRP#4690 QRP-ARCI#10742 QRP-MASTER#50

eng. Oleg V. Borodin E-Mail: master72@lipetsk.ru

Date: Sat, 19 May 2001 09:44:08 -0700
From: Phil Wheeler <w7ox@earthlink.net>
To: master72@lipetsk.ru
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98467] Re: PSK with DSB?
Message-ID: <3B06A2D8.DDB15029@earthlink.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Oleg Borodin wrote:

>

> Dear QRPers!

> A little idea and question. Is it possible to use PSK mode with DSB-trcvr?

> If it is, this maybe a too simple and little equipment. Looking for

> opinions, thnx!

Off hand answer, Oleg: You could receive with DSB (but likely would have
interference on a crowded band like 20 m PSK31. If you transmitted both
sidebands, you could become unpopular real fast. And if you mean AM
(DSB plus carrier), TX would be very unwelcome, I suspect.

Note that I've never used anything but SSB on PSK31, so this is
speculation.

73, Phil W7OX

Date: Sat, 19 May 2001 16:51:09
From: "Mike WA8BXN" <hubby2k@hotmail.com>

To: master72@lipetsk.ru, qrp-l@Lehigh.EDU
Subject: [98468] Re: PSK with DSB?
Message-ID: <F395HfqR77bieLYCT4a00005816@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

I think it would work, but may not be legal, you would be transmitting two psk transmissions. Second, most simple dsb rigs would not be stable enough unless crystal controlled. Third, demodulation would at the receive end require enough selectivity to cut out the second side band, or you would have to be tuned precisely in frequency and phase. So I think the bottom line is that although maybe someone could copy a stable psk transmission using DSB, its not going to be very practical. Others may have more experience with it, so don't take my opinion as fact!
73 - Mike WA8BXN

>A little idea and question. Is it possible to use PSK mode with DSB-trcvr?
>

Get your FREE download of MSN Explorer at <http://explorer.msn.com>

Date: Sat, 19 May 2001 09:55:13 -0700
From: Bill Walker <kd7jzb@mindspring.com>
To: QRP-L List <qrp-l@Lehigh.EDU>
Subject: [98469] Trapped on 20M
Message-ID: <5.0.2.1.0.20010519090703.01ae9650@mail.mindspring.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Sorry, I couldn't resist the play on words. :-)
I need some direction on the fine points of trap design. I have a 20M dipole that I would like to turn into a 20/30M dipole by making use of a couple of traps and extra wire.
I know that I could easily calculate numbers for a resonant parallel LC circuit, put it on the end of my already tuned 20M wire, attach another length of wire and tune it to 30M. That would probably work out OK but what I'm really after is theory, ie. reasons for choosing component types and values, the importance of Q or impedance values in trap circuits, why I should use a 5uh inductor as apposed to a 20uh inductor etc.
I enjoy building my own antennas and I would like to learn the ins and outs of trap design by making use of practical hands on experience. I am not an engineer but I have a pretty good grasp of electronics and worked as an engineering technician for a number of years.
Any and all information or advice is greatly appreciated.

72,

Bill Walker - KD7JZB
<http://www.qsl.net/kd7jzb>

Date: Sat, 19 May 2001 13:31:10 +0000
From: "Steven Weber" <kd1jv@moose.ncia.net>
To: qrp-l@lehigh.edu
Subject: [98470] NH AT ALERT
Message-ID: <200105191803.f4JI3Q415857@wolf.ncia.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

Hi Gang,

Well, the Wx still looks iffy, overcast and some showers earlier, but what the heck, I'll wander up to the shelter in a little while anyway. I hope to be on 7.041-7.045 by about 6:30 pm, edt and stay on well into the evening, hoping to pick up some mid-western stations. See ya later..

72,

Steve, KD1JV in the white Mountains of New Hampshire
"melt solder"

Date: Sat, 19 May 2001 13:31:09 +0000
From: "Steven Weber" <kd1jv@moose.ncia.net>
To: Drbob92031@aol.com
Cc: qrp-l@lehigh.edu
Subject: [98471] Re: Mic output amplification
Message-ID: <200105191803.f4JI3N415852@wolf.ncia.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

> 1.If I break this habit of shouting will I get the same drive from the mic?

Well, you'll get more out of the mic, but not out of the rig. If the mic gain of the rig is set right for a normal speaking voice, i.e., the ALC just starts to flicker or the meter move, shouting will just kick in the ALC harder. No more power out, but your voice will be

more compressed and maybe less intelligible. If the rig doesn't have ALC, shouting will overdrive the amp and produce distortion and splatter, which wouldn't win you any friends..

> 2. If not, would a mic amplifier between the mic and the rig. allow me to
> speak in a softer voice and still give me a reasonable rig output?

I'm pretty sure there is a mic preamp built into the base of a D-104.
Flip it over and look :-)

72,

Steve, KD1JV in the white Mountains of New Hampshire
"melt solder"

Date: Sat, 19 May 2001 12:35:48 -0600
From: "James R. Duffey" <jamesd1@flash.net>
To: <qrp-1@lehigh.edu>, <kd7jzb@mindspring.com>
Subject: [98472] Untrapped on 20M
Message-ID: <B72C1923.9B48%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Bill - A good place to learn about traps is an article in the May 1985 QST entitled "Multiband Trap and Parallel Dipoles - A Comparison" by KA3BL0, John Grebenkemper.

He discusses the role of trap resonance reactance, $X_t = 2\pi \times (\text{resonance frequency}) \times L$, in determining antenna properties, which I think is what you want. If the trap resonance reactance is too low the bandwidth will be too low on the higher band, and if it is too high, then the bandwidth will be too low on the higher band.

Grebenkemper gives some guidance in the form of design charts in selecting the proper trap resonance reactance. He also gives some examples.

I hope that this helps. - Dr. Megacycle KK6MC/5

--
James R. Duffey KK6MC/5
30 Casa Loma Road
Cedar Crest, NM 87008

Date: Sat, 19 May 2001 18:45:30 +0000
From: Paul Kiciak <pkiciak@att.net>
To: master72@lipetsk.ru
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [98473] Re: PSK with DSB?
Message-ID: <3B06BF4A.B54B8E3A@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Oleg,

One can generate PSK31 as DSB if one applies the baseband envelope of PSK31 DC coupled to a single balanced modulator & then linearly amplify after that.

The main problem is that the available software doesn't generate the envelope, but an envelope shaped audio sinewave instead.

I have been investigating some possibilities of using a dumb terminal RS-232 type interface to new rig hardware consisting of uC(s), a DAC, and a few stages of Bessell filtering to internally generate the PSK31 codes and the baseband envelope..

With this approach, the suppressed carrier is right in between the two PSK31 tones and doesn't result in any additional interference. This approach also avoids the potential for hum, noise, and other spuriis common to soundcard based designs, particularly those that result from overdriving or incorrectly interfacing to the mic input on an SSB rig. Flat-topping due to PA overdrive remains a concern that can be addressed with ALC or feedback or output monitoring.

One interesting thing about this approach is that it can also be used for CW wave shaping.

Still a work in progress here, so not much more to report now.

BTW, this approach will only work for BPSK, not QPSK.

73,
Paul, N2PK

<http://home.att.net/~n2pk>

Date: Sat, 19 May 2001 11:56:13 -0700
From: "Mark M." <markem@cervnet.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [98474] Re: Mic output amplification
Message-ID: <3.0.6.32.20010519115613.007f3550@pop3.norton.antivirus>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 13:31 05/19/2001 +0000, Steven Weber wrote:

> ...

>I'm pretty sure there is a mic preamp built into the base of a D-104.

>Flip it over and look :-)

>

Many do but not all. Mine did not but I built a simple one transistor amp on a tiny piece of perf board, mounted it in the base, and powered it from the 8v at the mic jack. I got the circuit from the Handbook. I used it on both Kenwood and Icom HF rigs (had to change the connector, tho). The 104 is Hi-Z, really designed for old tube rigs. I suspect that the amp did more impedance matching than amplifying (or at least as much). Most modern rigs have Lo-Z mic inputs. Another thing to keep in mind is that the element on the 104 is crystal and they deteriorate with age and their output decreases. AES used to carry new elements for about \$20...they probably still do but I haven't looked lately. I believe there's also a ceramic element available for the 104 which would probably be more rugged. The 104 is a classic but it was designed for Hi-Z tube rigs and you'd probably be better off with an electret element on the solid state rigs.

73... Mark AA7TA

Date: Sat, 19 May 2001 15:08:17 -0400
From: George Murphy <ve3erp@encode.com>
To: qrp-l@lehigh.edu
Subject: [98475] Hamcalc?
Message-ID: <4.3.2.7.0.20010519150319.00a91190@encode.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

If anyone who sent me a "hamcalc?" inquiry did not receive a reply from me within 24 hours it is because the message I sent in reply was rejected by the Internet as being undeliverable. Please try again, and include your correct e-mail address in the body of the message.

TNX es 73

Murph - the Hamcalc Guy

Date: Sat, 19 May 2001 15:37:47 -0400
From: "Russ Hines" <wb8zcc@one.net>
To: <Drbob92031@aol.com>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [98476] Re: Mic output amplification
Message-ID: <003d01c0e09b\$2f7abee0\$152717d8@rbhines>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Besides the possible increase in distortion, excessive sound pressure =
level into a mic can damage the element. I hope you were =
euphemistically "yelling." ;-)

Just curious, but your D-104 has the chrome or black "lollipop" mic =
head, right? If so, I think that's a crystal or carbon button mic =
element (I forgot which one actually). Astatic made a dynamic mic head =
for the D-104 base (a different number I believe). The one's I've seen =
were kind of an egg-shaped gray and chrome. I found it's a little more =
durable.

Anyway, if your mic has sufficient output to drive your rig, I wouldn't =
worry too much about a preamp. A little change in gain goes a long way. =
Using a "normal conversational voice level," I'd work the mic no closer =
than 4"-6" or so from your mouth... a good rule-o'-thumb is one fist =
width of your hand. And by speaking more across the mic instead of =
directly into it will help cut down on SPL-created distortion, in case =
you find yourself "yelling" again. ;-)

If you still have problems being heard or understood while using a =
conversational voice level, you might want to consider equalization =
and/or limiting. I think the D-104 lollipop mic tends to be brighter (a =
treble boost) than it really needs to be for communications work, but =
that's just me. If your rig has no ALC, a limiter can keep those voice =
peaks down to a manageable level so you won't overmodulate and distort. =
BTW, the same rules apply here regarding preamps... a little goes a long =
way.

73,
Russ Hines
WB8ZCC
wb8zcc@one.net

wb8zcc@arrl.net

----- Original Message -----=20

From: <Drbob92031@aol.com>

To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Sent: Saturday, May 19, 2001 9:14 AM

Subject: Mic output amplification

> Hi to all;

> I need some knowledge. This is not directly QRP related.

> I have a mic; D-104; and I have a bad habit of yelling into the mic as =
if my=20

> shouting will reach the DX at the other end. This shouting (yelling) =
is=20

> disturbing late at night.=20

> Questions;

> 1.If I break this habit of shouting will I get the same drive from the =
mic?

> 2. If not, would a mic amplifier between the mic and the rig. allow me =
to=20

> speak in a softer voice and still give me a reasonable rig output?

> 3. If I need the mic amplifier, (this is where the knowledge comes in) =
where=20

> do I get the schematics etc. Something in the order of "that little =
black"=20

> box that I can put between the mic and the rig. small in size i.e. uses =
I.C.'s.

> Any assistance would be appreciated by myself the XYL and the =
neighbors.

> 72/73 de WA2EAW..Bob=20

>=20

>=20

Date: Sat, 19 May 2001 15:49:13 -0400

From: "Russ Hines" <wb8zcc@one.net>

To: <w1hue@amsat.org>, "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>

Subject: [98477] Re: Inexpensive BNC connectors

Message-ID: <007101c0e09c\$c8abdbc0\$152717d8@rbhines>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

A word of warning: sometimes you really do get what you pay for.

The cheap BNC's from Bomar, Markertec and the like, are intended for =
baseband service (video, etc) and may not perform for you very well at =
say 10 meters and above... they're probably fine for HF, but there's a =
reason why they're inexpensive. ;-)

73,
Russ Hines
WB8ZCC
wb8zcc@one.net
wb8zcc@arrl.net

----- Original Message -----=20
From: Larry East <wlhue@amsat.org>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Sent: Friday, May 18, 2001 8:38 PM
Subject: RE: Inexpensive BNC connectors

> In a recent post, Bob Tellefsen wrote:
> >Turns out that BOMAR is the manufacturer of these connectors, and =
sells
> >their
> >production overruns very cheaply.
> >
> >Their URL is <http://www.bomarinterconnect.com/html1/clearance.html>
>=20
> Tried twice to view the URL using Netscape V4.7 and each time Netscape =

> dropped to its knees and died... Tried it with an old version of =
Internet
> Explorer (V3.02 -- I refuse to update to a newer version just =
because...)
> and it worked fine. Is BOMAR perhaps owned by Bill Gates?? :-) :-)
>=20
> L.
>=20
>=20

Date: Sat, 19 May 2001 14:47:47 -0500
From: "Gene Sailsbury" <gsailsbury@mobil1.net>
To: "Low Power" <qrp-l@Lehigh.EDU>

Subject: [98478] Kenwood TS 120 Mic:
Message-ID: <004e01c0e09c\$953878c0\$d4c03fd8@8tracker>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Looking for a Kenwood Mic for my old TS 120. Let me know if anyone has
one for sale. Thanks.
Gene KC0IKY

Date: Sat, 19 May 2001 15:51:43 US/Eastern
From: pwomble1@tampabay.rr.com
To: qrp-l@lehigh.edu
Cc: fpqrp-l@mpna.com
Subject: [98479] W8PIG on the air again with the TT2: 19May01 2000z
Message-ID: <200105191951.f4JJph503393@smtp-server1.tampabay.rr.com>

W8PIG will be QRV again with the TT2 at 2000z. We'll be on 7041.8.

We will be on for a couple of hours before the FDI Banquet.

Hope to see you in the log!

73
Paul
K4FB/8

Date: Sat, 19 May 2001 13:10:50 -0700 (PDT)
From: "Robert P. Okas" <vintage@best.com>
To: qrp-l@lehigh.edu
Subject: [98480] Mouser insecurities
Message-ID: <Pine.BSF.4.21.0105191257090.27696-100000@shell14.ba.best.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Gang,

I just surfed over to the Mouser web page to track my order. Instead
of the usual home page, I found a two line message from some hacker. Check

for for yourselves. This breach of basic security (simple file privilege stuff) makes me wonder what other vulnerabilities are lying in wait for someone with too much time on their hands.

73,
Bob - W3CD

Date: Sat, 19 May 2001 16:11:21 -0400
From: Bruce Muscolino <w6toy@erols.com>
To: vintage@best.com
Cc: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>
Subject: [98481] Re: Mouser insecurities
Message-ID: <3B06D369.F839A05E@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Bob,

This is not the first time this has happened. They were hit by a hacker a year or so ago. Terrible. They must have somewhat of a large hole in their software somewhere. Use the telephone, it's as fast and as safe!

73

Date: Sat, 19 May 2001 16:21:39 -0400
From: "Ed Tanton" <n4xy@att.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [98482] RE: Mouser insecurities
Message-ID: <CKEGICNFDIMCEKEDCEHFCELEHCAA.n4xy@att.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="us-ascii"
Content-Transfer-Encoding: 7bit

How embarrassing for Mouser-when your hacker has to tell you how to fix it. My Info. Technology person would be looking for a job.

73 Ed Tanton N4XY <n4xy@arrl.net>

Ed Tanton N4XY
189 Pioneer Trail
Marietta, GA 30068-3466

website: <http://www.n4xy.com>

LM: ARRL QCWA AMSAT & INDEXA;
SEDXC NCDXA GACW QRP-ARCI
OK-QRP QRP-L #758 K2 (FT) #00057

R-390: Motorola SN: 374;
R-390-A: Capehart SN: 2241
51S-1 WE SN: 4389
HRO-50; HRO-60; & HRO-500
SP600-VLF SP600-JX-17 SP-600-JX-21

Date: Sat, 19 May 2001 16:23:13 -0400
From: Ray Sills <raysills@1stconnect.com>
To: QRP list <qrp-l@Lehigh.EDU>
Subject: [98483] D-104
Message-ID: <B72C4E71.594F%raysills@1stConnect.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Hi Gang:

As several people have noted, the D-104 was designed for use with high impedance inputs (vacuum tubes) and for AM operation. The crystal version of the D-104 had more "output" compared to other crystal microphones, so it reduced the gain requirements for the first audio stage in the rig. It also has a "rising" response in it's audio frequency sensitivity.

Most audio modulators used in AM rigs of the vacuum tube generation were quite broad in their frequency response, and could transmit sidebands up to 8 or 10 KHz from the carrier. The D-104 has a peak of several dB around 5 KHz in it's audio response, which adds "clarity" or edge to the overall response to voice, so it gave a "good sound" to the transmitted audio. This charactersitic actually is not useful for most SSB rigs which tailor the audio response with the bandpass filters in the IF section. A flat response mic usually is better for today's rigs.

73 de Ray
K2ULR
FN20t1

Date: Sat, 19 May 2001 19:03:20 +0100
From: "Dave" <g0dja.dave@pgen.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [98484] Re: PSK31 net
Message-ID: <00a101c0e09c\$1b343460\$3c1a3c3e@o8j5r0>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----

> What about starting a qrp net using psk31? We
> could try 20 meters and invite the world to check in.
> It would be a great forum for newcomers as well as
> old salts who could share their wisdom with the rest
> of us.

> Joe W3GW

How about one for PSK10 as well? (Yes, there is such a program)

de Dave (G0DJA)

Date: Sat, 19 May 2001 17:31:02 -0400
From: "Ken Simpson, W8EK" <W8EK@fdt.net>
To: "QRP List" <qrp-l@lehigh.edu>
Subject: [98485] CW key and keyer FS
Message-ID: <049d01c0e0ab\$02116de0\$4f91d4d1@toshiba>

For Sale:

TenTec KR-50 keyer.
Iambic, with dit and dah memories, if desired (they

can be turned on or off). Built in Iambic paddles,
12 V DC or 110 V AC power, and reed relay output
to key most any rig. \$ 60

Generic brass colored key.
Has shorting switch. It seems to be the "normal"
brass colored key. Decent, but not fancy. \$ 15

Also:

TenTec 248 noise blanker. This is the noise blanker
that goes in the Omni 546, Series A and Series B, xcvrs.
It is quite effective on some noise, and not effective
at all on other types of noise. It does not go in the Omni
series C, as they came with a blanker installed as a
standard item from the factory. This one has all the paper
work with it, for \$50.

Prices do not include shipping from Florida.

Thanks.

73,

Ken, W8EK

Ken Simpson
E-Mail to W8EK@fdt.net or W8EK@usa.net
Voice Phone (352) 732-8400

Date: Sat, 19 May 2001 15:22:43 -0700
From: Louis Hlousek <lhlousek@nvhbell.net>
To: kd7jzb@mindspring.com, Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [98486] Re: Trapped on 20M
Message-ID: <004601c0e0b2\$3a888580\$650dfea9@0016297931>
MIME-version: 1.0
Content-type: text/plain; charset="iso-8859-1"
Content-transfer-encoding: 7bit

There's a trick I've seen somewhere where instead of using a full blown

L/C trap you simply extend the shorter wavelength antenna by about 10% and then add an inductor and another length of wire. By adjusting the stinger length and the inductance you can make it resonate on two bands. These are sold commercially as so called "trapless" dual band dipoles.

I figured it out once for 40/80 meters with about a 75' overall length using the "short dipole" tool on the HamCalc page.

Luigi W7DZN

End of QRP-L Digest 2194

